

II. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested.

The undersigned requests an interview with the examiner prior to the issuance of the next office action.

Rejections Under 35 U.S.C. § 103

Claims 1, 2, 5-9, and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,977,653 issued to Schmid, et al. (Schmid) in view of GB Patent No. 2,370,671 issued to Bauch, et al. (Bauch), U.S. Patent No. 6,198,997 issued to Ishikawa et al. (Ishikawa) and U.S. Patent No. 5,950,973 issued to Verma (Verma).

Claim 1 recites that the safety arrangement includes a sensor unit comprising at least one sensor responsive to acceleration, the sensor unit being located substantially along a central longitudinal line of the vehicle; and a control unit located remotely from the sensor unit and from the actuator and away from the central longitudinal line, the control unit being operable to receive information from the sensor unit and to transmit an actuation command to the actuator to activate the safety device; wherein the control unit comprises no sensor responsive to acceleration wherein the signal processor operates to perform a crash algorithm, which causes the signal processor to instruct the control unit to transmit the actuation command to the actuator.

In after final amendment filed November 30, 2010, claim 1 was amended to state that it is the signal processor, which forms part of the sensor unit, that performs the

crash algorithm (which in turn causes the signal processor to instruct the control unit to transmit the actuation signal to the actuator). Previously the claim recited that the control unit performed the crash algorithm.

In the advisory action the examiner appears not to acknowledge this amendment. However, with respect to both of the items of prior art mentioned by the examiner, this point appears to make a significant difference.

The examiner firstly mentions Schmid. Since claim 1 requires that the control unit *comprises no sensor responsive to acceleration*, the embodiment of figure 3 of Schmid is the one that is relevant to the invention (in figure 2, both the central configuration 10 and the impact detection configuration 20 have acceleration sensors). In figure 3 of Schmid, there is a control unit 3 in the impact detection configuration 20 (corresponding to the "sensor unit" of claim 1) that outputs an "on" or "high" signal if the acceleration sensed by the sensor 5 exceeds a threshold. This signal is transmitted across to the central configuration 10 (corresponding to the "control unit" of claim 1) via the two interfaces 103. Importantly, however, this signal is analyzed by a further control unit 1 to determine whether an air-bag is to be inflated. As can be understood clearly from the passage beginning on line 42 of column 6, the use of two power switches 71, 72 allow the system to distinguish between a genuine "firing instruction" and erroneous signals (e.g. arising from a malfunction). The mere fact that an "on" signal is supplied to the further control unit 1 is not sufficient to cause the air-bag to be fired.

Returning to the embodiment of figure 3, it can be seen that the "crash algorithm" is carried out at the central configuration 10 - the simple comparison of the output of sensor 5 against a threshold, which takes place at the control unit 3 of the impact

detection configuration 20, cannot be considered to be the "crash algorithm", as this does not result in the central configuration being "instructed to transmit the actuation command to the actuator". As such, the arrangement discussed in Schmid cannot fall within the scope of current claim 1.

Turning to Bauch, it is stated (beginning on line 30 of page 7) that *the sensor 26 includes a self-contained controller which analyses the measured acceleration, and which determines whether the measured "lateral" or "Y-axis" acceleration is consistent with a "deployment" type side collision*. It might appear from this that the sensor unit is carrying out the crash algorithm. However, the paragraph beginning on line 20 of page 6 makes it clear that *sensors 18-24 provide data representing the measured values to the controller, which utilizes these values to determine the "lateral" or "Y-axis" acceleration of each of the doors 36-42 ... controller 14 utilizes these values along with data from sensor 26 in a "distributed" crash prediction algorithm ... and determines whether the inflation of any of the devices 28-34 is required*. It is, therefore, clear that an indication from the sensor 26 that acceleration is high will not, by itself, cause any air-bags to be inflated. Only when the control unit 14 makes a determination, based on signals from all of the vehicle's sensors, will an air-bag be inflated.

This is further confirmed by figure 5 and the accompanying description on page 12. Beginning on line 20 of page 12 it is stated that *after receiving the high acceleration value or "deployment" signal from sensor 26, controller 14 further ensures that the door-mounted sensors data meets a moderate or lower threshold level or value prior to deploying any of restraint assemblies 28-34*. This makes it very clear that the sensor 26

cannot instruct the control unit to transmit an actuation command, as required by claim 1.

The Examiner may not reject as obvious a claim directed to a combination of several limitations merely by demonstrating that each element is independently known in the art. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). To support an obviousness rejection, the Examiner should identify a reason that would have prompted one of ordinary skill in the relevant field to improve the known device in the same manner as the claimed invention. 127 S. Ct. at 1740-41; 72 Fed. Reg. at 57,531. The Examiner must avoid distortion caused by hindsight bias when arguing such a combination is obvious. 127 S. Ct. at 1742.

Finally, the examiner points to US5950973 (Verma) to show that the control unit may be located away from the central tunnel. This appears to be a clear instance of hindsight reconstruction, in order to assemble a combination which has all of the elements of claim 1. As no factual evidence is provided that one of ordinary skill in the art would have been motivated to combine the references in the manner claimed. Overall, the claimed invention provides a specific combination of features which brings about a particularly advantageous result. This advantageous result is not hinted at anywhere in the prior art, and it is unrealistic for the examiner simply to select features from a range of documents and state that it would be obvious for one of ordinary skill in the art to make this combination, which would appear to be arbitrary from the standpoint of a skilled person at the priority date who was not already aware of the invention.

Claims 2, 5-9, and 15 depend from claim 1 and are, therefore, patentable for at least the same reasons as given above in claim 1.

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, Ishikawa and Verma as applied to claim 1 above, and further in view of GB Patent No. 2,292,126 issued to Burton, et al. (Burton). Claims 3 and 4 depend from claim 1 and are, therefore, patentable for at least the same reasons as given above in claim 1.

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, Ishikawa and Verma as applied to claim 1 above, and further in view of U.S. Patent No. 6,113,138 issued to Hermann, et al. (Hermann). Claim 10 depends from claim 1 and is, therefore, patentable for at least the same reasons as given above in claim 1.

Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, Ishikawa and Verma as applied to claim 1 above, and further in view of U.S. Patent No. 6,459,366 issued to Foo, et al. (Foo). Claim 11 depends from claim 1 and is, therefore, patentable for at least the same reasons as given above in claim 1.

Claims 12-14 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, Ishikawa and Verma as applied to claim 1 above, and further in view of U.S. Publication No. 2002/0084636 issued to Lewallen, et al. (Lewallen). Claims 12-14 and 16 depend from claim 1 and are, therefore, patentable for at least the same reasons as given above in claim 1.

Claims 17-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch Ishikawa and Verma as applied to claim 1 above, and

further in view of U.S. Patent No. 6,522,992 issued to McCall, et al. (McCall). Claims 17-20 depend from claim 1 and are, therefore, patentable for at least the same reasons as given above in claim 1.

Claim 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, Ishikawa and Verma as applied to claim 1 above, and further in view of U.S. Patent No. 6,145,389 issued to Ebeling, et al. (Ebeling). Claim 21 depends from claim 1 and is, therefore, patentable for at least the same reasons as given above in claim 1.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is requested.

Respectfully submitted by,

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